

Echthromorpha from the Marquesas and Society Islands
(Hymenoptera: Ichneumonidae)

By J. F. PERKINS

BRITISH MUSEUM (NATURAL HISTORY)

Due to the kindness of Elwood C. Zimmerman, I have been able to examine a series of *Echthromorpha* from the Marquesas and Society Islands collected by the Pacific Entomological Survey. A report on the material is presented here. The holotypes of the new forms will be stored at Bishop Museum, Honolulu, and some of the paratypes are in the British Museum.

A. SPECIES FROM THE MARQUESAS ISLANDS

A single species of *Echthromorpha* has so far been described from the Marquesas Islands; it is:

***Echthromorpha marquisensis marquisensis* (Cheesman)**, new combination.

Echthromorpha atrata subspecies *marquisensis* Cheesman, 1928.

Echthromorpha opaca Cushman, 1939, new synonym.

This subspecies is represented in the Pacific Entomological Survey collection by the following material:

Hiva Oa: Kopaafaa, 2,770 feet, August 2-3, 1929, 2 ♂, 1 ♀ (Mumford and Adamson). Teava uhia i te kohu, 2,100 feet, February 15, 1930, sweeping over *Paspalum conjugatum*, 2 ♀ (Mumford and Adamson). Atuona Valley, March 28, 1929, on *Morinda citrifolia*, 1 ♂ (Mumford and Adamson). Anatikane, 1,750 feet, August 1, 1929, on *Piper latifolium*, 1 ♂ (Mumford and Adamson). Kaava ridge, 2,800 feet, January 8, 1932, 1 ♀ (Le Bronnec). Feani ridge, 3,800 feet, January 22, 1932, 1 ♀ (Le Bronnec). Kakahopuanui, 2,500 feet, January 5, 1932, sweeping herbage, 1 ♂ (Le Bronnec).

Tahuata: Pahukoa ridge, 1,100 feet, July 25, 1930, 1 ♂, 2 ♀ (Le Bronnec and H. Tauraa). Hanahevane Valley, sea-shore, July 15-16, 1930, 5 ♀ (Le Bronnec and H. Tauraa). (Same data as type of *E. opaca* Cushman.) Hanateio Valley, 1,000 feet, July 23, 1930, 1 ♀ (Le Bronnec and H. Tauraa). Tehue Valley, 600 feet, May 27, 1930, 3 ♂ (Le Bronnec and H. Tauraa). Kiinui Valley, 1,100 feet, June 16, 1930, 1 ♂ (Le Bronnec and H. Tauraa).

Ua Huka: Viatiake, 1,000 feet, March 24, 1931, 1 ♀ (Le Bronnec and H. Tauraa). Tauheeputa, 1,770 feet, March 23, 1931, on *Abutilon menziesii*, 1 ♂ (Le Bronnec and H. Tauraa).

I have also examined 3 ♂ and 3 ♀ from Fatu Hiva (including the type of *marquisensis*), 4 ♂ from Tahuata and 3 ♂ from Hiva Oa (L. E. Chees-

man) in the collection of the British Museum (Natural History). The specimens from the Marquesas determined as *E. walkeri* by Miss Cheesman are males of *E. marquisensis*.

In the above material, I find little difference between specimens from the different islands, but in the females those from Tahuata often have more distinct yellow markings on the abdomen. The three females from Ua Pou, however, are all very much more copiously red marked and these are described as a distinct subspecies. I am unable to distinguish the male.

***Echthromorpha marquisensis* uapou, new subspecies.**

Differing from the typical subspecies in having the thorax red, with the pronotum in the lower angles and centrally, the prepectus, the mesopleuron posteriorly dorsad, the mesonotum centrally, anteriorly and the propodeum along the posterior margin, together with all the sutures, black or fuscous; abdomen red with segments 2-5 sometimes infuscate basally (and more or less yellow marked laterally, subapically); hind coxa entirely red; scape conspicuously marked with yellow beneath.

Holotype female: Ua Pou; Hakahetau Valley, 1,000-2,000 feet, January 31, 1930 (R. R. Whitten). *Paratypes*: 1 ♀, same data as type; 1 ♀, Koputukea, Hakahetau Valley, 1,150 feet, November 16, 1931, sweeping over *Gleichenia linearis* (Le Bronnec).

Also from Ua Pou are the following : 3 ♂ from Hakahetau Valley; 1,000 feet, January 29, 1930; 1,200 feet, December 6, 1929 and 2,000 feet, December 26, 1929 (R. R. Whitten).

The form from Nuku Hiva differs not only in colour, but also quite markedly in sculpture, and this I am regarding as a distinct species which is described below.

***Echthromorpha nukuhivae*, new species.**

♀. Head polished with the frons weakly coriaceous and the antennal scrobes weakly, irregularly trans-striate, the face coriaceous, this sculpture being weaker centrally, dorsad, with sparse, rather coarse, shallow punctures which are sparser centrally, and with rugae beneath the antennal sockets, clypeus with rather sparse, fine punctures laterally and basally; face as long as broad; malar space subequal in length to the breadth of base of mandible; junction of genal and hypostomal carinae about 2.5 times the length of the malar space from the lower articulation of the mandible.

Thorax mat through coriaceous sculpture, with only the lower angles of pronotum, the subalar callus in part, the scutellum centrally and the apex of the propodeum, the mesepisternum and the basal groove of the propodeum shining; pronotum striate in the lower angles, in the transverse groove and just in front of the hind margin of the lateral angles, the central area of the lateral angles coriaceous but with this sculpture tending to form irregular striae; mesonotum closely, shallowly punctate centrally and in the middle line of the lateral lobes, the lateral lobes otherwise with sparser very shallow punctures; notaulices very weakly indicated anteriorly; scutellum more closely punctate centrally than in *marquisensis*; mesopleuron and mesosternum with shallower punctures than in *marquisensis*, the mesosternum more sparsely punctate, the whole pleuron, including the speculum, and the sternum, dull; propodeum similar to *marquisensis* except for the coriaceous ground sculpture, without apophyses.

Abdomen with the first tergite coriaceous except for the base, with a few shallow punctures laterally; tergites 2-7 very closely punctate, with the apical margin coriaceous with shallow, scattered punctures (in *marquisensis* the apical margin laterally has minute punctures, not conspicuous, coriaceous sculptured); ovipositor sheath a little more than half as long as abdomen.

Coxae coriaceous, with sparse punctures, the hind coxae with the microsculpture coalescing to form transverse striae dorsally; hind femur with weak coriaceous sculpture, the punctures in the upper half much shallower and sparser than in *marquisensis*.

Black; clypeus apically pale yellow laterally, fading into red centrally; red spot on the lower margin of the antennal socket; frontal orbits usually marked with red; scape reddish beneath; mandibles marked with pale yellow basally; front margin of pronotum narrowly red laterally; subalar callus usually red; tergites 2 or 3-5 red or reddish apically, tegite 6 red marked with black basally, tergites 6-7 red, 6 sometimes infusate basally; front coxae more or less reddish; posterior coxae weakly marked with red internally; trochanters more or less marked with red dorsally; femora red; tibiae and tarsi fuscous or piceous, the front tibiae sometimes with a pale yellow spot apically; wings hyaline, venation black.

Length, 9-14 mm.

♂. Unknown.

Holotype female: Nuku Hiva: Vaihakameama, 2,600 feet, June 19, 1931 (Le Bronnec and H. Tauraa). *Paratypes*: 3 ♀, same data as type; Tapuao Oa, 2,600 feet, May 30, 1931, 2 ♀ (Le Bronnec and H. Tauraa) and at 3,100 feet, November 11, 1929, 1 ♀ (Mumford and Adamson).

Differs from *E. marquisensis* in the pronounced coriaceous ground sculpture, particularly of the thorax and legs, and in the weaker, sparser punctures; in colour also, in the black outer and facial orbits, the mostly black thorax, the much darker coxae and the darker abdomen.

B. SPECIES FROM THE SOCIETY ISLANDS

The following species were examined from the Society Islands. All were collected by A. M. Adamson.

Echthromorpha agrestoria Swederus.

Tahiti: Papenou Valley, 150 meters, October 25, 1928, 10 kilometers from the sea, 6 ♂; October 27, 1928, 6 kilometers from the sea, 1 ♂; 300 meters, October 26, 1928, 10 kilometers from the sea, 2 ♂. Papeavi, 50 feet, November 9, 1928, over *Tradescantia*, 1 ♂; Paea, 600 feet, August 28, 1928, 2 ♂, 1 ♀. Fautaua Valley, 1,000 feet, August 23, 1928, 1 ♂; 1,500 feet, September 11, 1928, 2 ♂.

Moorea: Faaroa Valley, 1,000 feet, December 4, 1928, 3 miles from the sea, 1 ♂.

I have examined specimens of this species also from Rapa (British Museum collection).

Echthromorpha walkeri Cameron.

Tahiti: Faa, 300 feet, September 7, 1928, 6 kilometers from the sea, 1 ♂.

I have seen this species only from the Society Islands. The specimens from the Marquesas recorded under this name by Miss Cheesman are males of *E. marquisensis* Cheesman.

C. SYNONYMY IN ECHTHROMORPHA

Echthromorpha inimica (Smith 1863), new combination.

Pimpla inimica Smith.

Echthromorpha immaculata Krieger 1908.

Echthromorpha diversor Morley 1913, new synonym.

Echthromorpha plagiata Smith 1858.

Pimpla plagiata Smith.

Echthromorpha wallacei Cameron 1912.

Echthromorpha nigricornis (Smith 1864), new combination.

Pimpla nigricornis Smith.

Echthromorpha maxima Krieger 1908, new synonym.

Echthromorpha arrogans (Smith 1863), new combination.

Pimpla arrogans Smith.

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